

REMARKS/ARGUMENTS

Claims 1-20 are currently pending in the present application. No amendments have been made to the claims with the filing of this response.

Request for reconsideration of the present application is respectfully requested in view of the remarks below.

Claim Rejection - 35 U.S.C. §§ 102 & 103

The rejection of claims 1, 2, 4-7, 10, 12, 14, 16, 17, 19 and 20 under 35 U.S.C. § 102(b) as anticipated by Braune et al. ("An Efficient Method for Controlled Propylene Oxide Polymerization: The Significance of Bimetallic Activation in Aluminum Lewis Acids"); the rejection of claims 3, 13, 15 and 18 under 35 U.S.C. § 103(a) as obvious over Braune et al. in view of Yu (U.S. Patent No. 5,010,139); claims 8 and 9 as obvious over Braune et al. in view of McGee et al. (US 2002/0010268); and claim 11 as obvious over Braune et al. in view of Yu are respectfully traversed for reasons of record and the reasons below.

According to the Office, in the Response to Arguments at page 6 of the present Office Action, Braune et al., describes using a mononuclear organylaluminum compound which falls within the claimed mononuclear organylaluminum compound. The Office also asserts that Applicant's arguments regarding higher molecular weight and shorter reaction time results are not persuasive, since Braune et al. teaches that the polymerization occurred with pronounced speed and control at room temperature.

However, Applicant points out that, as mentioned in the present specification at pages 2 to 3, that in Braune et al., the reference generally describes the polymerization of propylene oxide using mixtures of specific aluminum complexes. In a multistage synthesis, neutral aluminum complexes $[\text{Al}(\text{L})\text{Cl}]_2$ and $[\text{Al}(\text{L})\text{OiPr}]_2$ are first prepared and isolated, these being binuclear, i.e., comprising two Al atoms per molecule. These binuclear complexes are reacted with $\text{Net}_4\text{-Cl}$ or $\text{Net}_4\text{-OiPr}$ to give anionic complexes $[\text{Net}_4][\text{Al}(\text{L})\text{Cl}_2]$ and, respectively, $[\text{Net}_4][\text{Al}(\text{L})(\text{OiPr})_2]$, and these are likewise isolated. L here is 2,2'-methylenebis(6-tert-butyl-4-methylphenol) or 2,2'-methylenebis[4-methyl-6-(1-methylcyclohexyl)phenol], OiPr is isopropanolate, and Et is ethyl. It is said that PO can only be polymerized if the neutral

(binuclear) and anionic complexes are used together. The preparation and isolation of the complex compounds described are complicated and costly, and after 3 hours of reaction time the number-average molecular weight of the PPO is only from about 1100 to at most 3600.

According to the claimed invention, mononuclear organoaluminum compounds are used, which comprise one aluminum atom per molecule (formula unit), contrasting with polynuclear organyl compounds which have two or more aluminum atoms in the molecule. By way of example, binuclear organoaluminum compounds are used as described in Braune et al.

Further, as evidenced by the present specification (see examples at pages 16-26), the polymerization times are markedly shorter than those in the other processes, the desired polymerization time being at most 48 hours, which does not result in achievement of poorer molecular weight. In particular, the process is capable of achieving polyoxiranes with higher molecular weights.

Therefore, the claimed invention is not anticipated by or obvious over Braune et al. Further, there is no description or suggestion in any of the other references or record to modify Braune et al. to achieve the claimed invention, other than improper hindsight of the present specification.

Accordingly, withdrawal of the rejections is kindly requested.

In view of the foregoing reasons, consideration and allowance are respectfully solicited.

In the event the Examiner believes an interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

The Office is authorized to charge any necessary fees to Deposit Account No. 03-2775.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 12810-00247-US1 from which the undersigned is authorized to draw.

Dated: January 15, 2009

Respectfully submitted,

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